Corps Navigation Study Under Fire

onald Sweeney II, a longtime
Corps employee who works in the
St. Louis District, has accused top
Corps officials of manipulating data in an
economic study to find out if large-scale
improvements to the navigation system
are needed on the Upper Mississippi and
Illinois rivers.

Sweeney, who served for five years as chief economist on the study, concluded that large-scale improvements of \$1 billion or more are unnecessary. He also determined that small-scale improvements of considerably less expense were justified.

He filed a whistleblower action Feb. 2 with the Office of Special Counsel, outlining his concerns and providing memos and other documents as evidence of wrongdoing.

He alleged that Corps officials failed to comply with appropriate laws, rules and regulations by manipulating key variables pertaining to the required cost-benefit analysis contained in the feasibility report.

Corps officials deny the charges and welcome an investigation in order to repair the agency's reputation and to complete the 7-year-old, \$50 million study. As a matter of standard practice the Office of Special Counsel has turned the investigation over to the DOD Inspector General. Several congressional committees are also conducting investigations.

The Rock Island District has project manager responsibility for the study.

Corps Stands By Model

Gary Loss, the Corps project manager for the study, said the Corps is still using the System Equilibrium Model (SEM) that Sweeney developed.

Loss said the reason Sweeney was replaced on the study came down to time, not competence.

"Dr. Sweeney had been developing the model, and as any researcher does, he's constantly improving on the model. However, for the sake of getting the study completed, the decision was made that in order to get the production out of the

model, we needed to have someone else conduct that. We needed to get out of the research mode and into the production mode," Loss said.

Richard Manguno, the senior Corps economist in the Mississippi Valley Division, from the New Orleans Engineer District replaced Sweeney as lead economist for the study.

More On The "N"

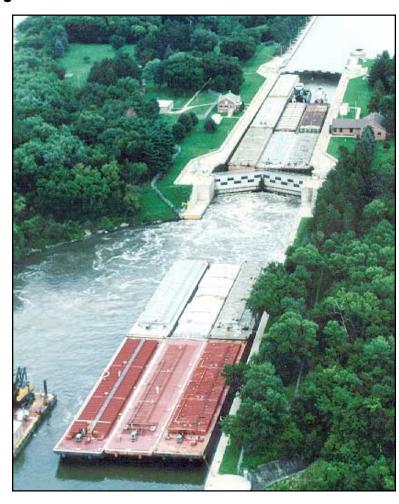
Loss said the Corps is currently using 1.2 as the N value in the model, but says it's not an arbitrary figure.

"We basically took a weighted average of shipments in Iowa and came up with a weighted average for N," Loss said. That average was 1.2.

Elasticity, which is directly related to N, depends on proximity to the means of transportation studied. Iowa was used because of the availability of data. Due to the distance to the river, commercial interests in Iowa have several alternatives for their grain other than inland water transportation; unlike a state like Illinois, which has ready access to two inland waterways.

"We made a management call to get the study moving, and used the number 1.2," Loss said, noting that value and the entire study formulation is under review.

"The industry actually thought N should be much lower," Loss said.
"MARC 2000 suggested that it should be much lower than one."



A lower N value results in the need for navigation improvements sooner. A higher N value would mean improvements at a later time or not at all.

"We think (1.2) is a reasonable number. We've analyzed it from several directions," Loss said.

Rehabilitation Revisited

The rehabilitation cost savings of the extended lock alternative are real, according to Loss.

"As we got further into the study, we realized that if we were to construct a lock extension, basically as we do that we're going to replace all of the moving parts, and so we don't need to do a rehab for another 25 years. At that point, we've got a completely rehabbed lock," Loss said.

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Contingency Cost Reduction

The reduction of contingency costs was a result of technological advances.

Loss said that when the study began six years ago, the technology available was still untried.

"When we started the study the technology was such that we felt it was virtually impossible to (extend the locks) because it would have such an impact on the navigation industry; we'd have the lock shut down." Loss said.

As the study progressed and more was learned of emerging construction technologies, Loss said the Corps realized the extensions could be built during winter shutdown periods, and the lock extension alternative became a feasible one.

"There's less uncertainty now," Loss said.

Because of this, the Corps reduced the contingency cost figure from 35 percent to 25 percent, which Loss says is a fairly typical contingency cost figure for feasibility studies.

The Study Today

At the Nov. 18, 1999, Governors' Liaison Committee meeting, the study team presented ten alternative evaluations for improvements to the navigation system. Four of the alternatives appear to warrant the most consideration as the team progresses towards identifying the National Economic Development and Tentatively Selected plans. The remaining measures include extending 600-foot lock chambers to, or adding, 1,200-foot chambers; extending guidewalls to 1,200feet with powered kevels; and adding mooring cells or buoys. These measures are combined at different lock locations to give an array of plans to evaluate and compare. The alternative plans will be evaluated in consideration of completeness, effectiveness, efficiency, and acceptability.

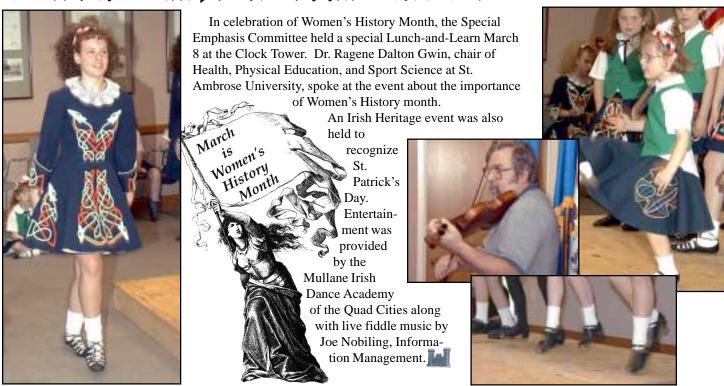
The study team is also evaluating a 12-lock alternative (1,200-foot chambers at Locks 20-25 and 14-18 on the Mississippi and Peoria and La Grange on the Illinois). In addition, the team is further assessing the costs, performance and benefits

associated with a 1,200-foot chamber in the auxiliary gate area for locks on the Mississippi and for keeping the existing 600-foot chamber in operation if a new 1,200-foot chamber is constructed.

Corps headquarters recently requested that the release of NED and Tentatively Selected plans be delayed while they conducted a policy review of the formulation procedures used for the study. Their review was completed on March 16 and found that the Rock Island District conducted the Study in a manner consistent with the Principles and Guidelines established by USACE. However, due to the sensitivity of Study parameters and assumptions, HQ USACE has requested additional information and explanation in the areas of quality management, engineering, economics, environmental analysis, and plan formulation.

The draft feasibility study is currently scheduled for release this summer with the final to be released in December. The additional information requested by USACE will likely affect the study schedule.

A Wee Bit O' Irish Dancin' at the Clock Tower



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